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REMARKS/ARGUMENTS

Claims 1-14 are pending in this application. By this Amendment, Applicants AMEND the Drawings and claim 1.

Applicants greatly appreciate the Examiner's indication that claims 2-7 and 9-14 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims.

The Drawings were objected to for failing to designate Fig. 1 as --Prior Art--. Applicants have amended Fig. 1 to properly be designated as --Prior Art--. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to the Drawings.

Claims 1 and 8 were rejected under 35 U.S.C. § 102(b) as being anticipated by Lin (U.S. 6,184,580). Applicants respectfully traverse the rejection of claims 1 and 8.

Claim 1 has been amended to recite:

"A cavity-down ball grid array package comprising:
a flexible circuit tape including a flexible tape laminated to a conductor layer, the flexible circuit tape having an aperture therein;
a thermally conductive heat spreader directly fixed to a first surface of the flexible circuit tape, the heat spreader having a cavity aligned with the aperture of the flexible circuit tape;
a semiconductor die mounted to the heat spreader, in a die-down configuration in said cavity;
a thermally conductive die adapter fixed to said semiconductor die such that a portion of said die adapter protrudes from said cavity;
a plurality of wire bonds connecting said semiconductor die to bond sites on said second surface of said flexible circuit tape;
an encapsulating material encapsulating said semiconductor die and said wire bonds; and
a plurality of solder balls disposed on a second surface of the flexible circuit tape, in the form of a ball grid array." (emphasis added)

Applicants' claim 1 recites the feature of "a thermally conductive heat spreader directly fixed to a first surface of the flexible circuit tape." With the improved features of claim 1, Applicants have been able to provide a cavity-down ball grid array package with

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improvements in thermal and electrical performance (see, for example, paragraph no. 6 on page 2 of the originally filed Specification).

Applicants have amended claim 1 to recite the feature of "a thermally conductive heat spreader directly fixed to a first surface of the flexible circuit tape." Lin clearly teaches in Figs. 2-4 that a conductive lead 36 is disposed between the first surface of a first surface of the flexible circuit tape 35 and the heat spreader 26. In other words, Lin teaches that the heat spreader 26 is fixed to a first surface of the flexible tape 35 via the conductive lead 36, NOT that the heat spreader 26 is directly fixed to the first surface of the flexible circuit tape 35 as recited in Applicants' claim 1. Thus, Applicants respectfully submit that Lin fails to teach or suggest the feature of "a thermally conductive heat spreader directly fixed to a first surface of the flexible circuit tape" as recited in Applicants' claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Lin.

Accordingly, Applicants respectfully submit that none of the prior art of record, applied alone or in combination, teaches or suggests the unique combination and arrangement of elements recited in claim 1 of the present application. Claims 2-14 depend upon claim 1 and are therefore allowable for at least the reasons that claim 1 is allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

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The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: August 2, 2004


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